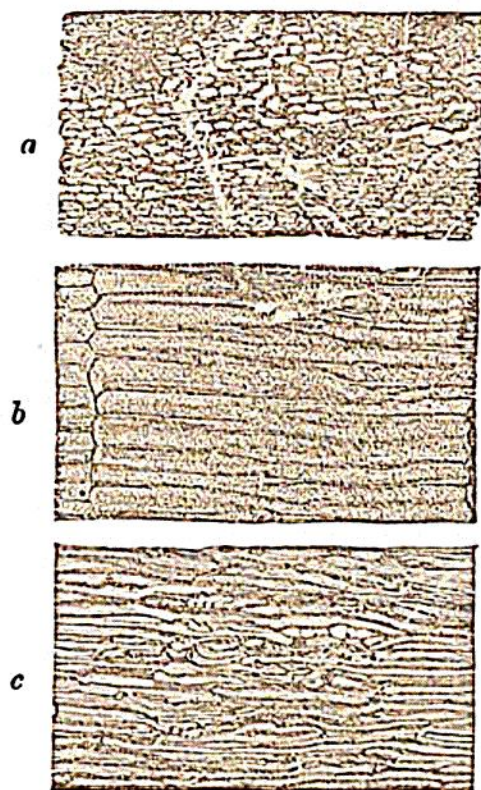


Fig. 58



INTERNAL STRUCTURE OF LIGNITE OF LOWER OLD RED SANDSTONE.

- a. *Transverse section.*
- b. *Longitudinal section, (parallel to radius, or medullary rays.)*
- c. *Longitudinal section, (tangential, or parallel to the bark.)*

(Mag. forty diameters.)

were at first not at all detected; and, as since shown by a very fine microscope, they appear simply as double and triple lines of undefined dots, (*b*), that somewhat resemble the stippled markings of the miniature painter; nor are the openings of the medullary rays frequent in the tangential section (*i. e.* that parallel to the bark,) (*c*;) but nothing can be better defined than the peculiar arrangement of the woody fibre, and the longitudinal form of the cells. Such is the character of this, the most ancient of lignites yet found, that yields to